

FIG. 1A

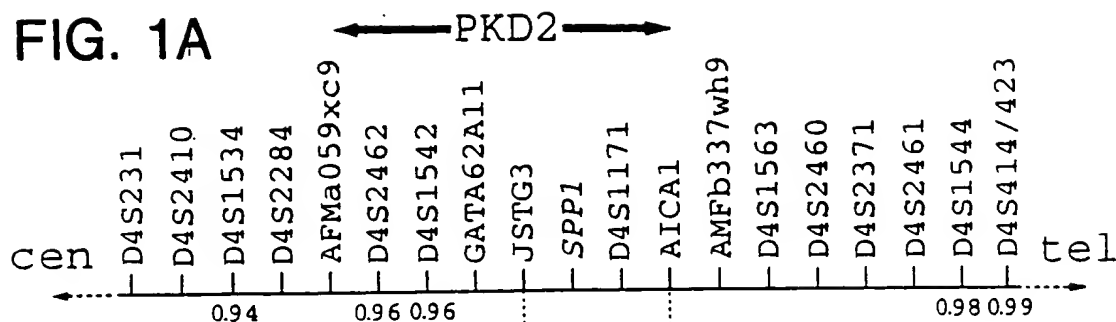


FIG. 1B

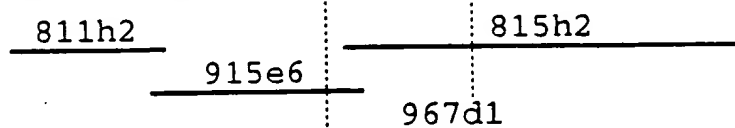


FIG. 1C

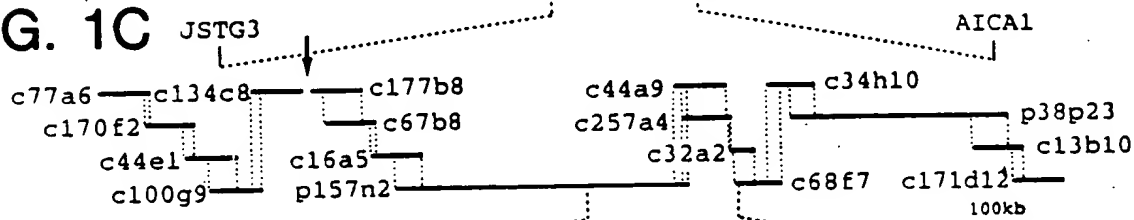


FIG. 1D

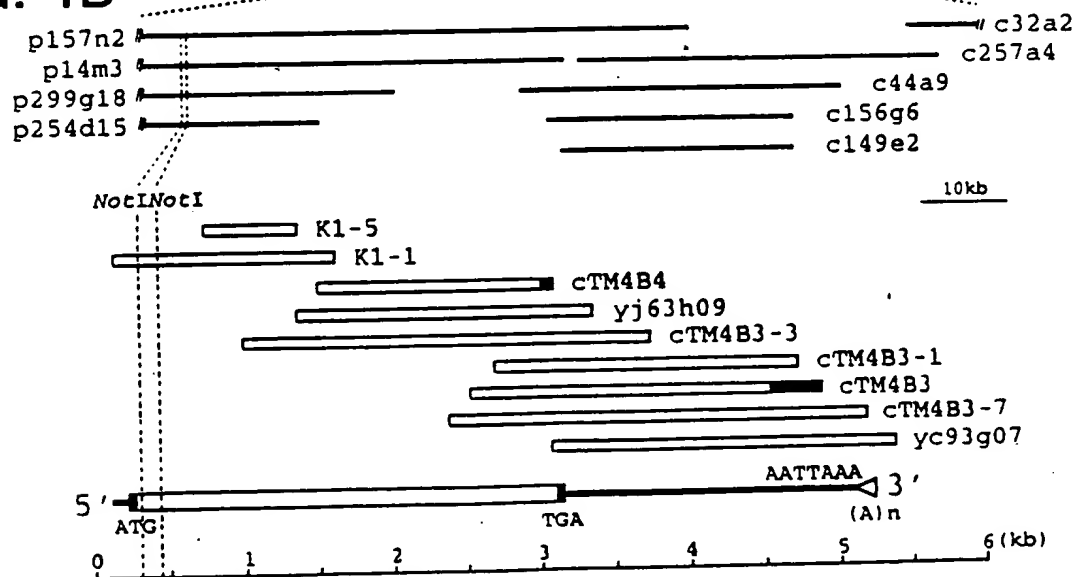


FIG. 1E

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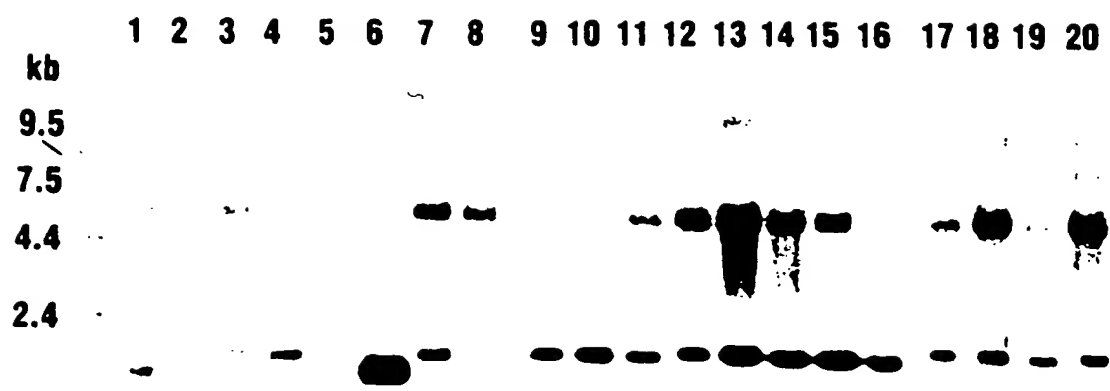
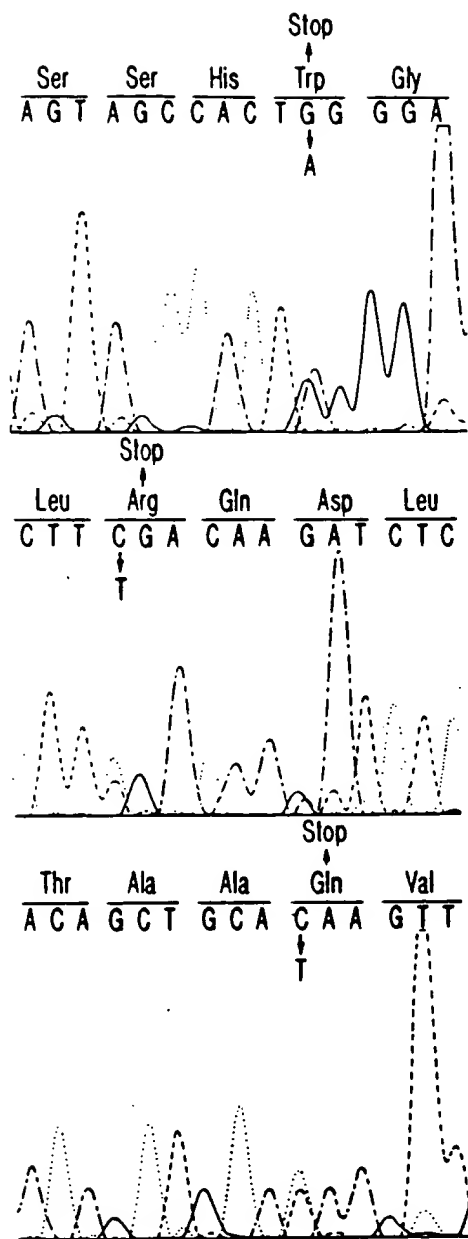
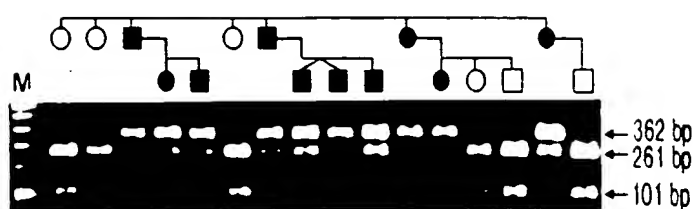


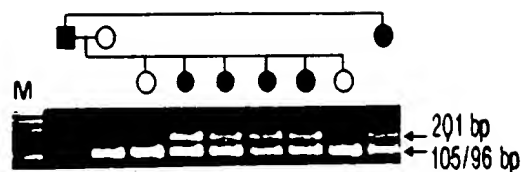
FIG. 2



Family 97



Family 1605



Family 1601

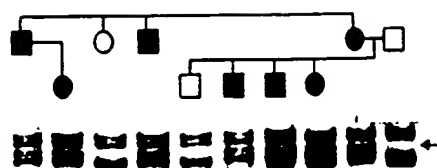


FIG. 3

CTM-4 HVNSSRVQPOQPDGAKRPPAPRAPDGRMLMAGCAAVGSLAAPGCLGEORGLIEIMQIRQAARDPPAGAASPPRLSSCSRQAMSRONPGFEAESEE 100

CTM-4 EEVEEGEGGVVENDVWEPGSRSAASAVSSVGARSNGLGYHGAGHPGSRRRRREDQGPCCPPVGGDPLHRLHPLLEGOPRPAVAMERLVRLGLRL 200

CTM-4 WGTRLMEESSTNREKYLKSLVRLRELVTYLLFLVLICILLTYGMSSNVVYTRMNSOLFDTDPVSKTEKTNFKTLSSMEDFWKFTEGSLDGLYWKHPQSNQ 300
 PKD1 (3655) FLAKEARKVKRLHGMRLSLVYMLFLVTLTLLASXGDASCHGAY.RLOS... AIKQELHSRAFLAITRSEELWPMMAHVLLPYVH... GNO
 ZK945.9 (1708) ENRKMRDEQLFITIRDMLCFFASLYIMVMLTYICKDRHGMYQLEMTSTILINOKNYGDN.T.FMSIQHADDFWDMARESLATALLASWYDGNP

CTM-4 TEADNRSFIYENLLLGVPRIQRLVRNNGSCSIPODILDEIKECYDVYSVSSSEDRAPFGPRNGTA.WIY.TSEKDLNGSSHMGIIATYSAGAYLDLSRTRE 400
 PKD1 SSPE... LGPRLRQVRLQELALYDPDPGPRVHTCSAAGGFSTSDYDVGMESPHNGSGTWAY..SAPDLGAMSWGSCAVDSGGYVQELGLSLE
 ZK945.9 AYGMRAYMNDKVSRSMSGIGTIRQVTRTKS (1828) (1878) YTYKTSE.ELSTETVSGLLYSISGGCYTISMSGTQA

CTM-4 ETAQVASLKKNVMLDGRGTRATFIDFSVYNANINLFCVVRLLVEFPATGCVIPSWQOPKLIRYVTTFFDFFLAACELIFCEFFIFYVVEILE.IRIHKL 500
 PKD1 ESRDRLRFLQHLNMLDNRSRAVLELTRYSPAVGLMAVTLRLEFPAGRALAALSVRPFALRRLSAGLSPLTSLVCLLLEAVHFAVAEARTW.HREGRW
 ZK945.9 EITLFNKLDSERWIDHTRAVIIEFSAYNAQINFSVQVLVEIPKSGIYILPNSWESVRLIKSESGDGTVVKYEMLYIFFSVLIFVKEIV (2005) (1517) FTMVFSLECVLKVIAFGFL

CTM-4 HYER.SFWMCLDVIVVLSVAAGININIRTSNEV.LLOEL.EDONTFNEHLAYMOIOENINIAAVTFEFVMIKLFKEINFNRTMSQSLTMSRCAKOLF 598
 PKD1 RVLRLGAMARMLLVALTAATAVLRLAQLGADRQ..WTRFVRGRPRRTSFDQVLAQLSSAARGLASLLELLVKAQOLRFVRQMSVFGKTLCRALPEL
 ZK945.9 (2039) WNFMDLIVGALAVASVLAITYIRORTTNRAMEDENANNNGNSYINLTEQRNWEIVSYCLAGAVFETSCMIRILRFNRIGVLAATLDNALGAY
 VACCAIE-1 NYFR.DTNMIFDFITVIGSITEIILLTDSKLVNTSG.F.....NMSFLK.....LFRARLIKLLRQGYTIRILMTFVQSFKALP

CTM-4 GFAIMFFIIFLAVYLAAYLVFGTOVDSTFOECIFTOFRILGLDINFAIEEAN.RVLGPITYFTTFVFMFFILNMFIAIINDTYSEVKSDL...AQOKA 696
 PKD1 GVTGLVLGVAVYAQLAILLVSSCVDSLSMSVAQALL...VLCPGTGLSTCPAESMHLSPILCVGIMALRLMGALRLGAVILRWYHALRGELLYRAPMEPO
 ZK945.9 SFGIAFLFESMTFNSVLYAVLGNKMGGRSLMATFOTALAGMLGKLDVTSIQP....ISOFAFVIMLYMI(2199)
 VACCAIE-1 YVCLLIAMLFFIYAIIGMOVFG NNFERSFFGSLMLLFRSATGE.AMOEIERCG.TDLAYVVEVSFIFFCSFLMLNLFVAVIMDNFEYLTRD.....
 (1630) (1644) (1668) (1692) 1605

CTM-4 EMELSDLIRKGYHAKLVKLKKNNVDDISESLRGGGKLNFDLRLQDLKRGKHTDAIEAIFTKYDQDQDELTEHGHQMRDQLEKEREDLDLHSSLP 800
 PKD1 DYEMVELF.....LRLRL (4139) (2216) EFEEIRNDSEKOTNDYEI (2233)

ZK945.9

VACCAIE-1

CTM-4 PMSRSFPRSLDDSEDDDEDSGSSRRRGSISSGVSYEEFOVLVRRVDRMENSIGSIVSKIDAVIVKLEIMERAKLRREVLRLLDGVAEDERLGRDSEI 900

CTM-4 HREOMERLVREELERMESDDAASQISHGLTVPGLNGQPRPRSSSSOS.TEGMEGAGNGSSNVHV 968
 VACCAIE-1 (2039) ERRRSKERKHLSPDVSRCNSEERGTOADWESPEKROSRSPSEGRSOTPNRQGTGSLSESSI (2100)

FIG. 4A

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[illegible]

FIG. 4B

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99

											GGC	TCC	TGA	GGC	GCA	CAG	18
CGC	CGA	GCG	CGG	CGC	CGC	GCA	CCC	GCG	CGC	CGG	ACG	CCA	GTG	ACC	GCG		66
ATG	GTG	AAC	TCC	AGT	CGC	GTG	CAG	CCT	CAG	CAG	CCC	GGG	GAC	GCC	AAG		114
Met	Val	Asn	Ser	Ser	Arg	Val	Gln	Pro	Gln	Gln	Pro	Gly	Asp	Ala	Lys		
1				5					10					15			
CGG	CCG	CCC	GCG	CCC	CGC	GCG	CCG	GAC	CCG	GGC	CGG	CTG	ATG	GCT	GGC		162
Arg	Pro	Pro	Ala	Pro	Arg	Ala	Pro	Asp	Pro	Gly	Arg	Leu	Met	Ala	Gly		
			20					25					30				
TGC	GCG	GCC	GTG	GGC	GCC	AGC	CTC	GCC	GCC	CCG	GGC	GGC	CTC	TGC	GAG		210
Cys	Ala	Ala	Val	Gly	Ala	Ser	Leu	Ala	Ala	Pro	Gly	Gly	Leu	Cys	Glu		
			35				40					45					
CAG	CGG	GGC	CTG	GAG	ATC	GAG	ATG	CAG	CGC	ATC	CGG	CAG	GCG	GCC	GCG		258
Gln	Arg	Gly	Leu	Glu	Ile	Glu	Met	Gln	Arg	Ile	Arg	Gln	Ala	Ala	Ala		
	50					55					60						
CGG	GAC	CCC	CCG	GCC	GGA	GCC	GCG	GCC	TCC	CCT	TCT	CCT	CCG	CTC	TCG		306
Arg	Asp	Pro	Pro	Ala	Gly	Ala	Ala	Ala	Ser	Pro	Ser	Pro	Pro	Leu	Ser		
65					70					75					80		
TCG	TGC	TCC	CGG	CAG	GCG	TGG	AGC	CGC	GAT	AAC	CCC	GGC	TTC	GAG	GCC		354
Ser	Cys	Ser	Arg	Gln	Ala	Trp	Ser	Arg	Asp	Asn	Pro	Gly	Phe	Glu	Ala		
				85					90					95			
GAG	GAG	GAG	GAG	GAG	GAG	GTG	GAA	GGG	GAA	GAA	GGC	GGA	ATG	GTG	GTG		402
Glu	Glu	Glu	Glu	Glu	Glu	Val	Glu	Gly	Glu	Glu	Gly	Gly	Met	Val	Val		
				100				105					110				
GAG	ATG	GAC	GTA	GAG	TGG	CGC	CCG	GGC	AGC	CGG	AGG	TCG	GCC	GCC	TCC		450
Glu	Met	Asp	Val	Glu	Trp	Arg	Pro	Gly	Ser	Arg	Arg	Ser	Ala	Ala	Ser		
		115					120					125					
TCG	GCC	GTG	AGC	TCC	GTG	GGC	GCG	CGG	AGC	CGG	GGG	CTT	GGG	GGC	TAC		498
Ser	Ala	Val	Ser	Ser	Val	Gly	Ala	Arg	Ser	Arg	Gly	Leu	Gly	Gly	Tyr		
	130					135					140						
CAC	GGC	GCG	GGC	CAC	CCG	AGC	GGG	AGG	CGG	CGC	CGG	CGA	GAG	GAC	CAG		546
His	Gly	Ala	Gly	His	Pro	Ser	Gly	Arg	Arg	Arg	Arg	Arg	Glu	Asp	Gln		
145					150				155						160		
GGC	CCG	CCG	TGC	CCC	AGC	CCA	GTC	GGC	GGC	GGG	GAC	CCG	CTG	CAT	CGC		594
Gly	Pro	Pro	Cys	Pro	Ser	Pro	Val	Gly	Gly	Gly	Asp	Pro	Leu	His	Arg		
				165				170						175			
CAC	CTC	CCC	CTG	GAA	GGG	CAG	CCG	CCC	CGA	GTG	GCC	TGG	GCG	GAG	AGG		642
His	Leu	Pro	Leu	Glu	Gly	Gln	Pro	Pro	Arg	Val	Ala	Trp	Ala	Glu	Arg		
			180				185						190				

FIG. 5A

CTG Leu	GTT Val	CGC Arg 195	GGG Gly	CTG Leu	CGA Arg	GGT Gly	CTC Leu 200	TGG Trp	GGA Gly	ACA Thr	AGA Arg	CTC Leu 205	ATG Met	GAG Glu	GAA Glu	690
AGC Ser	AGC Ser 210	ACT Thr	AAC Asn	CGA Arg	GAG Glu	AAA Lys 215	TAC Tyr	CTT Leu	AAA Lys	AGT Ser	GTT Val 220	TTA Leu	CGG Arg	GAA Glu	CTG Leu	738
GTC Val 225	ACA Thr	TAC Tyr	CTC Leu	CTT Leu	TTT Phe 230	CTC Leu	ATA Ile	GTC Val	TTG Leu	TGC Cys 235	ATC Ile	TTG Leu	ACC Thr	TAC Tyr	GGC Gly 240	786
ATG Met	ATG Met	AGC Ser	TCC Ser	AAT Asn 245	GTG Val	TAC Tyr	TAC Tyr	TAC Tyr	ACC Thr 250	CGG Arg	ATG Met	ATG Met	TCA Ser	CAG Gln 255	CTC Leu	834
TTC Phe	CTA Leu	GAC Asp 260	ACC Thr	CCC Pro	GTG Val	TCC Ser	AAA Lys	ACG Thr 265	GAG Glu	AAA Lys	ACT Thr	AAC Asn	TTT Phe 270	AAA Lys	ACT Thr	882
CTG Leu	TCT Ser 275	TCC Ser	ATG Met	GAA Glu	GAC Asp	TTC Phe	TGG Trp 280	AAG Lys	TTC Phe	ACA Thr	GAA Glu	GGC Gly 285	TCC Ser	TTA Leu	TTG Leu	930
GAT Asp 290	GGG Gly	CTG Leu	TAC Tyr	TGG Trp	AAG Lys	ATG Met 295	CAG Gln	CCC Pro	AGC Ser	AAC Asn	CAG Gln 300	ACT Thr	GAA Glu	GCT Ala	GAC Asp	978
AAC Asn 305	CGA Arg	AGT Ser	TTC Phe	ATC Ile	TTC Phe 310	TAT Tyr	GAG Glu	AAC Asn	CTG Leu	CTG Leu 315	TTA Leu	GGG Gly	GTT Val	CCA Pro	CGA Arg 320	1026
ATA Ile	CGG Arg	CAA Gln	CTC Leu	CGA Arg 325	GTC Val	AGA Arg	AAT Asn	GGA Gly	TCC Ser 330	TGC Cys	TCT Ser	ATC Ile	CCC Pro	CAG Gln 335	GAC Asp	1074
TTG Leu	AGA Arg	GAT Asp 340	GAA Glu	ATT Ile	AAA Lys	GAG Glu	TGC Cys	TAT Tyr 345	GAT Asp	GTC Val	TAC Tyr	TCT Ser	GTC Val 350	AGT Ser	AGT Ser	1122
GAA Glu	GAT Asp 355	AGG Arg	GCT Ala	CCC Pro	TTT Phe	GGG Gly	CCC Pro 360	CGA Arg	AAT Asn	GGA Gly	ACC Thr	GCT Ala 365	TGG Trp	ATC Ile	TAC Tyr	1170
ACA Thr 370	AGT Ser	GAA Glu	AAA Lys	GAC Asp	TTG Leu	AAT Asn 375	GGT Gly	AGT Ser	AGC Ser	CAC His	TGG Trp 380	GGA Gly	ATC Ile	ATT Ile	GCA Ala	1218
ACT Thr 385	TAT Tyr	AGT Ser	GGA Gly	GCT Ala	GGC Gly 390	TAT Tyr	TAT Tyr	CTG Leu	GAT Asp	TTG Leu 395	TCA Ser	AGA Arg	ACA Thr	AGA Arg	GAG Glu 400	1266

FIG. 5B

GAA Glu	ACA Thr	GCT Ala	GCA Ala	CAA Gln 405	GTT Val	GCT Ala	AGC Ser	CTC Leu	AAG Lys 410	AAA Lys	AAT Asn	GTC Val	TGG Trp	CTG Leu 415	GAC Asp	1314
CGA Arg	GGA Gly	ACC Thr	AGG Arg 420	GCA Ala	ACT Thr	TTT Phe	ATT Ile	GAC Asp 425	TTC Phe	TCA Ser	GTG Val	TAC Tyr	AAC Asn 430	GCC Ala	AAC Asn	1362
ATT Ile	AAC Asn	CTG Leu 435	TTC Phe	TGT Cys	GTG Val	GTC Val	AGG Arg 440	TTA Leu	TTG Leu	GTT Val	GAA Glu 445	TTC Phe	CCA Pro	GCA Ala	ACA Thr	1410
GGT Gly 450	GGT Gly	GTG Val	ATT Ile	CCA Pro	TCT Ser	TGG Trp 455	CAA Gln	TTT Phe	CAG Gln	CCT Pro	TTA Leu 460	AAG Lys	CTG Leu	ATC Ile	CGA Arg	1458
TAT Tyr 465	GTC Val	ACA Thr	ACT Thr	TTT Phe	GAT Asp 470	TTC Phe	TTC Phe	CTG Leu	GCA Ala	GCC Ala 475	TGT Cys	GAG Glu	ATT Ile	ATC Ile	TTT Phe 480	1506
TGT Cys	TTC Phe	TTT Phe	ATC Ile	TTT Phe 485	TAC Tyr	TAT Tyr	GTG Val	GTG Val	GAA Glu 490	GAG Glu	ATA Ile	TTG Leu	GAA Glu 495	ATT Ile	CGC Arg	1554
ATT Ile	CAC His	AAA Lys	CTA Leu 500	CAC His	TAT Tyr	TTC Phe	AGG Arg	AGT Ser 505	TTC Phe	TGG Trp	AAT Asn	TGT Cys	CTG Leu 510	GAT Asp	GTT Val	1602
GTG Val	ATC Ile	GTT Val 515	GTG Val	CTG Leu	TCA Ser	GTG Val	GTA Val 520	GCT Ala	ATA Ile	GGA Gly	ATT Ile	AAC Asn 525	ATA Ile	TAC Tyr	AGA Arg	1650
ACA Thr 530	TCA Ser	AAT Asn	GTG Val	GAG Glu	GTG Val	CTA Leu 535	CTA Leu	CAG Gln	TTT Phe	CTG Leu	GAA Glu 540	GAT Asp	CAA Gln	AAT Asn	ACT Thr	1698
TTC Phe 545	CCC Pro	AAC Asn	TTT Phe	GAG Glu	CAT His 550	CTG Leu	GCA Ala	TAT Tyr	TGG Trp	CAG Gln 555	ATA Ile	CAG Gln	TTC Phe	AAC Asn	AAT Asn 560	1746
ATA Ile	GCT Ala	GCT Ala	GTC Val	ACA Thr 565	GTA Val	TTT Phe	TTT Phe	GTC Val	TGG Trp 570	ATT Ile	AAG Lys	CTC Leu	TTC Phe	AAA Lys 575	TTC Phe	1794
ATC Ile	AAT Asn	TTT Phe	AAC Asn 580	AGG Arg	ACC Thr	ATG Met	AGC Ser	CAG Gln 585	CTC Leu	TCG Ser	ACA Thr	ACC Thr	ATG Met 590	TCT Ser	CGA Arg	1842
TGT Cys	GCC Ala	AAA Lys 595	GAC Asp	CTG Leu	TTT Phe	GGC Gly	TTT Phe 600	GCT Ala	ATT Ile	ATG Met	TTC Phe	TTC Phe 605	ATT Ile	ATT Ile	TTC Phe	1890

FIG. 5C

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CTA GCG TAT GCT CAG TTG GCA TAC CTT GTC TTT GGC ACT CAG GTC GAT	1938
Leu Ala Tyr Ala Gln Leu Ala Tyr Leu Val Phe Gly Thr Gln Val Asp	
610 615 620	
GAC TTC AGT ACT TTC CAA GAG TGT ATC TTC ACT CAA TTC CGT ATC ATT	1986
Asp Phe Ser Thr Phe Gln Glu Cys Ile Phe Thr Gln Phe Arg Ile Ile	
625 630 635 640	
TTG GGC GAT ATC AAC TTT GCA GAG ATT GAG GAA GCT AAT CGA GTT TTG	2034
Leu Gly Asp Ile Asn Phe Ala Glu Ile Glu Glu Ala Asn Arg Val Leu	
645 650 655	
GGA CCA ATT TAT TTC ACT ACA TTT GTG TTC TTT ATG TTC TTC ATT CTT	2082
Gly Pro Ile Tyr Phe Thr Thr Phe Val Phe Phe Met Phe Phe Ile Leu	
660 665 670	
TTG AAT ATG TTT TTG GCT ATC ATC AAT GAT ACT TAC TCT GAA GTG AAA	2130
Leu Asn Met Phe Leu Ala Ile Ile Asn Asp Thr Tyr Ser Glu Val Lys	
675 680 685	
TCT GAC TTG GCA CAG CAG AAA GCT GAA ATG GAA CTC TCA GAT CTT ATC	2178
Ser Asp Leu Ala Gln Gln Lys Ala Glu Met Glu Leu Ser Asp Leu Ile	
690 695 700	
AGA AAG GGC TAC CAT AAA GCT TTG GTC AAA CTA AAA CTG AAA AAA AAT	2226
Arg Lys Gly Tyr His Lys Ala Leu Val Lys Leu Lys Leu Lys Lys Asn	
705 710 715 720	
ACC GTG GAT GAC ATT TCA GAG AGT CTG CGG CAA GGA GGA GGC AAG TTA	2274
Thr Val Asp Asp Ile Ser Glu Ser Leu Arg Gln Gly Gly Gly Lys Leu	
725 730 735	
AAC TTT GAC GAA CTT CGA CAA GAT CTC AAA GGG AAG GGC CAT ACT GAT	2322
Asn Phe Asp Glu Leu Arg Gln Asp Leu Lys Gly Lys Gly His Thr Asp	
740 745 750	
GCA GAG ATT GAG GCA ATA TTC ACA AAG TAC GAC CAA GAT GGA GAC CAA	2370
Ala Glu Ile Glu Ala Ile Phe Thr Lys Tyr Asp Gln Asp Gly Asp Gln	
755 760 765	
GAA CTG ACC GAA CAT GAA CAT CAG CAG ATG AGA GAC GAC TTG GAG AAA	2418
Glu Leu Thr Glu His Glu His Gln Gln Met Arg Asp Asp Leu Glu Lys	
770 775 780	
GAG AGG GAG GAC CTG GAT TTG GAT CAC AGT TCT TTA CCA CGT CCC ATG	2466
Glu Arg Glu Asp Leu Asp Leu Asp His Ser Ser Leu Pro Arg Pro Met	
785 790 795 800	
AGC AGC CGA AGT TTC CCT CGA AGC CTG GAT GAC TCT GAG GAG GAT GAC	2514
Ser Ser Arg Ser Phe Pro Arg Ser Leu Asp Asp Ser Glu Glu Asp Asp	
805 810 815	

FIG. 5D

GAT	GAA	GAT	AGC	GGA	CAT	AGC	TCC	AGA	AGG	AGG	GGA	AGC	ATT	TCT	AGT	2562
Asp	Glu	Asp	Ser	Gly	His	Ser	Ser	Arg	Arg	Arg	Gly	Ser	Ile	Ser	Ser	
			820					825					830			
GGC	GTT	TCT	TAC	GAA	GAG	TTT	CAA	GTC	CTG	GTG	AGA	CGA	GTG	GAC	CGG	2610
Gly	Val	Ser	Tyr	Glu	Glu	Phe	Gln	Val	Leu	Val	Arg	Arg	Val	Asp	Arg	
		835					840					845				
ATG	GAG	CAT	TCC	ATC	GGC	AGC	ATA	GTG	TCC	AAG	ATT	GAC	GCC	GTG	ATC	2658
Met	Glu	His	Ser	Ile	Gly	Ser	Ile	Val	Ser	Lys	Ile	Asp	Ala	Val	Ile	
	850					855					860					
GTG	AAG	CTA	GAG	ATT	ATG	GAG	CGA	GCC	AAA	CTG	AAG	AGG	AGG	GAG	GTG	2706
Val	Lys	Leu	Glu	Ile	Met	Glu	Arg	Ala	Lys	Leu	Lys	Arg	Arg	Glu	Val	
865					870					875					880	
CTG	GGA	AGG	CTG	TTG	GAT	GGG	GTG	GCC	GAG	GAT	GAA	AGG	CTG	GGT	CGT	2754
Leu	Gly	Arg	Leu	Leu	Asp	Gly	Val	Ala	Glu	Asp	Glu	Arg	Leu	Gly	Arg	
				885					890					895		
GAC	AGT	GAA	ATC	CAT	AGG	GAA	CAG	ATG	GAA	CGG	CTA	GTA	CGT	GAA	GAG	2802
Asp	Ser	Glu	Ile	His	Arg	Glu	Gln	Met	Glu	Arg	Leu	Val	Arg	Glu	Glu	
			900					905					910			
TTG	GAA	CGC	TGG	GAA	TCC	GAT	GAT	GCA	GCT	TCC	CAG	ATC	AGT	CAT	GGT	2850
Leu	Glu	Arg	Trp	Glu	Ser	Asp	Asp	Ala	Ala	Ser	Gln	Ile	Ser	His	Gly	
		915					920					925				
TTA	GGC	ACG	CCA	GTG	GGA	CTA	AAT	GGT	CAA	CCT	CGC	CCC	AGA	AGC	TCC	2898
Leu	Gly	Thr	Pro	Val	Gly	Leu	Asn	Gly	Gln	Pro	Arg	Pro	Arg	Ser	Ser	
	930					935					940					
CGC	CCA	TCT	TCC	TCC	CAA	TCT	ACA	GAA	GGC	ATG	GAA	GGT	GCA	GGT	GGA	2946
Arg	Pro	Ser	Ser	Ser	Gln	Ser	Thr	Glu	Gly	Met	Glu	Gly	Ala	Gly	Gly	
945					950				955						960	
AAT	GGG	AGT	TCT	AAT	GTC	CAC	GTA	TGA	TAT	GTG	TGT	TTC	AGT	ATG	TGT	2994
Asn	Gly	Ser	Ser	Asn	Val	His	Val									
				965												
GTT	TCT	AAT	AAG	TGA	GGA	AGT	GGC	TGT	CCT	GAA	TTG	CTG	TAA	CAA	GCA	3042
CAC	TAT	TTA	TAT	GCC	CTG	ACC	ACC	ATA	GGA	TGC	TAG	TCT	TTG	TGA	CCG	3090
ATT	GCT	AAT	CTT	CTG	CAC	TTT	AAT	TTA	TTT	TAT	ATA	AAC	TTT	ACC	CAT	3138
GGT	TCA	AAG	ATT	TTT	TTT	TCT	TTT	TCT	CAT	ATA	AGA	AAT	CTA	GGT	GTA	3186
AAT	ATT	GAG	TAC	AGA	AAA	AAA	ATC	TTC	ATG	ATG	TGT	ATT	GAG	CGG	TAC	3234
GCC	CAG	TTG	CCA	CCA	TGA	CTG	AGT	CTT	CTC	AGT	TGA	CAA	TGA	AGT	AGC	3282

FIG. 5E

CTT TTA AAG CTA GAA AAC TGT CAA AGG GCT TCT GAG TTT CAT TTC CAG	3330
TCA CAA AAA TCA GTA TTG TTA TTT TTT TCC AAG AGT GTG AAG GAA AAT	3378
GGG GCA ATT CCT TTC CAC TCT GGC ATA GTT CAT GAG CTT AAT ACA TAG	3426
CTT TCT TTT AAG AAA GGA GCC TTT TTT TTC AAC TAG CTT CCT GGG GTA	3474
AAC TTT TCT AAA AGA TAA AAT GGG AAG GAA CTC CAA ACT ATG ATA GAA	3522
TCT GTG TGA ATG GTT AAG ATG AAT GTT AAA TAC TAT GCT TTT TTG TAA	3570
GTT GAT CGT ATC TGA TGT CTG TGG GAC TAA CTG TAT CAC TTA ATT TTT	3618
ACC TTA TTT TGG CTC TAA TTT GAA TAA GCT GAG TAA AAC CAC CAA AGA	3666
TCA GTT ATA GGA TAA AAT GGC ATC TCT AAC CAT AAC ACA GGA GAA TTG	3714
GAA GGA GCC CTA AGT TGT CAC TCA GTT TAA TTT CTT TTA ATG GTT AGT	3762
TTA GCC TAA AGA TTT ATC TGC ATA TTC TTT TTC CCA TGT GGC TCT ACT	3810
CAT TTG CAA CTG AAT TTA ATG TTA TAA CTC ATC TAG TGA GAC CAA CTT	3858
ACT AAA TTT TTA GTA TGC ACT GAA AGT TTT TAT CCA ACA ATT ATG TTC	3906
ATT TTA AGC AAA ATT TTA AGA AAG TTT TGA AAT TCA TAA AGC ATT TGG	3954
TTT TAA ACT ATT TTA AGA ATA TAG TAC TCG GTC AGG TAT GNN NCA CGC	4002
CTG TAA TCC CAG CAC TTT GGG AGG CCG AAA CAG GCG AAT CAC TTG AGC	4050
CCA GGA GTT CAA GAC CAA CAT GGG CAA TGT GGC GAA ACT CCA TCT CTA	4098
CAA AAA ATG CAA AAA TAA AAA ATA TAG TAC TCA AGT ATT CTT GAT CCT	4146
GTG TTT CAA AAC TAG AAT TTG TAA TGC AAA TGG AGC TCA GTC TAA TAA	4194
AAA AGA GGT TTT GGT ATT AAA AGT TCA TAC ATT AGA CAG TAT CAG CCA	4242
AAA TTT GAG TTA GCA ACA CTG TTT TCT TTA CGA GAG GGT CTC ACC CAA	4290
ATT TAT GGG GAG AAA TCT ATT TCT CAA AAA AAA AAA ATC TTC TTT TAC	4338
AGA AAT GTT GAG TAA GGT GAC ATT TTG AGC GCT AAT AAG CAA AAG AGC	4386
ATG CAG TGC TGT TGA ATA ACC CTC ACT TGG AGA ACC AAG AGA ATC CTG	4434
TCG TTT AAT GCT ATA TTT TAA TTT CAC AAG TTG TTC ATT TAA CTG GTA	4482
GAA TGT CAG TCC AAT CTC CAA TGA GAA CAT GAG CAA ATA GAC CTT TCC	4530

FIG. 5F

AGG	TTG	AAA	GTG	AAA	CAT	ACT	GGG	TTT	CTG	TAA	GTT	TTT	CCT	CAT	GGC	4578
TTC	ATC	TCT	ATC	TTT	ACT	TTC	TCT	TGA	ATA	TGC	TAC	ACA	AAG	TTC	TTT	4626
ATT	ACT	ACA	TAC	TAA	AGT	TTG	CAT	TCC	AGG	GAT	ATT	GAC	TGT	ACA	TAT	4674
TTA	TGT	ATA	TGT	ACC	ATG	TTG	TTA	CAT	GTA	AAC	AAA	CTT	CAA	TTT	GAA	4722
GTG	CAG	CTA	TTA	TGT	GGT	ATC	CAT	GTG	TAT	CGA	CCA	TGT	GCC	ATA	TAT	4770
CAA	TTA	TGG	TCA	CTA	GAA	AGT	CTC	TTT	ATG	ATA	CTT	TTT	ATT	GTA	CTG	4818
TTT	TTC	ATT	TCA	CTT	GCA	AAA	TTT	TGC	AGA	ATT	CCT	CCT	TTC	TAC	CCA	4866
TAA	ATT	ACA	TAT	AAT	TTT	TCT	TCT	TTA	GTC	ATG	GAG	AAC	NCC	CCC	CCA	4914
TCA	TCT	CAN	CCC	TAT	TAN	CTT	TCC	CAT	GTG	TAC	TGG	TAT	TAT	TAA	AAA	4962
GAC	ATT	TAC	ATA	CGC	AAG	TTT	TTC	ACT	GAC	AAN	CAA	GAA	TGT	TAT	TAA	5010
TGT	GTA	ATA	CTG	AGC	ACN	TTT	ACT	TCT	TAA	TAA	AAA	CTT	GAT	ATA	NT	5057

FIG. 5G